

Background/History of Project

Planning Process

The original Caughlin Ranch Master Plan was prepared in 1982 and 1983. On November 22, 1983 the Washoe Board of County Commissioners approved the Master Plan through the Major Project Review/Special Use Permit process and zoned the property under a resolution of intent. Given the project's proximity/adjacency to the City of Reno and the associated public service/fiscal concerns, the City of Reno reviewed the project. On May 14, 1984 the Reno City Council endorsed the Caughlin Ranch Master Plan and identified portions of the project as preferred for annexation into the City of Reno.

Washoe County's approval of the project required the preparation and approval of a Development Standards Handbook (DSH) as the cornerstone for guiding development of the Ranch. Basically, the DSH describes when and how the Caughlin Ranch will be developed, with standards specified for items such as roadways, signage, landscaping, architecture and traffic mitigation fees. With the City of Reno's formal expression of interest in the project, the DSH was coordinated and reviewed by both the City of Reno and Washoe County. The DSH was endorsed by the Washoe Board of County Commissioners on June 12, 1984. The Reno City Council adopted the handbook in July of 1984.

The master plan was updated in 1987. The updated Caughlin Ranch Master Plan was approved by the Washoe Board of County Commissioners on March 30, 1987 and the Reno City Council on May 26, 1987.

Activity to Date

River Run - The 91 homes are nearly all complete in the River Run townhome project. A tentative subdivision map for the Alum Creek Patio Homes is approved.
Caughlin Ranch Master Plan Update II

proved and 59 of the lots are recorded. The Mayberry Meadows Unit 4 project is entirely recorded and construction of the site improvements and homes is underway.

The Meadows - Three residential projects are in varying stages of completion in The Meadows plan area of the Caughlin Ranch. The third unit (Unit 2-B) of Caughlin Creek is nearing completion and contains 19 single family cluster homes. Caughlin Creek Units One and Two total 55 units. Caughlin Creek Units 3-12 have tentative map approval for 154 homes and Unit 3 is currently in the final design stage. Mayberry Meadows Units 1 through 3 is a 130 home subdivision. The last of these homes are presently under construction. Thus a total of 339 homes/homesites are in the various stages of construction or approval in The Meadows.

Nonresidential building is also underway in the Meadows. Caughlin Crossing is partially constructed (13,708 s.f.). Caughlin Crossing includes limited convenience retailing and office use, including the Caughlin Ranch's project office.

Juniper Trails - A total of nine residential projects are complete or in process in Juniper Trails. Pine Creek, a six-unit cluster home project nestled within a park on the Ranch, is complete. Six of the Juniper Trails subdivisions, units one through six, are complete, with a total 216 lots. Juniper Trails Unit Seven-A (Eaglesnest) is under construction and includes 32 estates. The balance of Unit 7 (Eaglesnest) includes 42 more estates. The ninth project, Juniper Trails Unit Eight (Evergreen) is under final design and entails 73 single-family homes. These nine Juniper Trails projects amount to 369 homes and homesites. Also, the Caughlin Club is in place. A small expansion is also approved.

Caughlin Ridges - All of the Caughlin Ridges plan area that lies to the east of future McCarran Boulevard has at the least been completed through the subdivision approval (tentative map) phase. Eastridge consists of 120 homesites, all of which are complete. Vista Pointe (also known as Caughlin Ridges Unit 1 or

Westridge) is a 65-unit project that is now under construction, with over half of the homes occupied. Westpoint is under final design for its 81 homesites. Ridge Hollow is part of an approved tentative map and entails 44 lots. Finally, Caughlin Crest is a 95-unit project that is constructed. These homes/homesites in the Caughlin Ridges area total 405.

Caughlin Village - Progress in the Caughlin Village Area is well underway. Village Green has an approved tentative map for 146 lots, 69 of which are recorded. The first Village Green homes are now occupied. The Caughlin Ranch Shopping Center is under construction, with completion slated for Spring of 1991. Valley Bank also has approval for a banking facility across Caughlin Parkway from the Caughlin Ranch Shopping Center and plans to commence construction soon. The Caughlin Ranch Elementary School opened in the fall of 1990. The Caughlin Village Professional Office and Office Park are scheduled to begin construction in 1991.

The Pines - No development has taken place in the Pines. This area was divided under the division of land map process prior to the original master plan approval and is thus owned by a number of investors.

Major Infrastructure Components

The following table lists the major infrastructure elements associated with each planning area of the Caughlin Ranch and the status of each

Infrastructure Component	Status
River Run	
Extension of the Lawton Interceptor	Complete, 1986
McCarran Boulevard Right-of-Way, Mayberry to Truckee River	Offered, 1984
McCarran Boulevard, Mayberry Drive to U.S. 40	Complete, 1989

The Meadows	
McCarran Boulevard Right-of-Way, Mayberry to Plumb	Offered, 1984
McCarran Boulevard Right-of-Way, Plumb to Cashill Boulevard	Offered, 1984-86
McCarran Boulevard, Mayberry to Plumb	Complete, 1989
McCarran Boulevard, Plumb to Cashill Boulevard	Complete, 1990

Juniper Trails	
Caughlin Parkway, Plumb to Caughlin Club	Complete, 1984/85
Caughlin Parkway, Caughlin Club to Plateau	Complete, 1986
Caughlin Parkway, Plateau Road to Steamboat Ditch	Complete, 1987
Caughlin Parkway, Steamboat Ditch to Alum Creek	Complete, 1990
Caughlin Parkway, Alum Creek to Village Green	Slated, 1991/92

Caughlin Ridges	
McCarran Boulevard Right-of-Way, Cashill to Skyline	Offered, 1983
McCarran Boulevard, Cashill to Skyline	Complete, 1990

Caughlin Village	
Park	Slated, 1989/90/91/92/93
School Site Dedication Offer	Complete, 1990
School Construction (By W.C.S.D.)	Complete, 1990
Fire Station Site Dedication	Slated, 1993
<hr/>	
The Pines	
N/A	N/A
<hr/>	

5. Sketch Impact Comparison

Sketch Impact Comparison

The purpose of this chapter is to compare the impacts associated with the updated project to those of the original master plan. Also, the ability of the existing implementation tool, the Development Standards Handbook (DSH), to accommodate any revised development impacts is discussed. Specifically, these topics are addressed: Water demand/rights, sewerage, land use allocation, and traffic generation.

Water Demand/Rights

The table to the right shows the original and updated water demand figures

Although the SPPCo. water consumption rates are generally reflective when applied throughout their entire service district, these same rates are believed to be somewhat conservative when applied to the Caughlin Ranch. The development at the Caughlin Ranch will employ a number of conservation techniques to reduce the traditionally accepted water consumption rates initially applied to the Caughlin Ranch.

The main area targeted to reduce water consumption is through water-conserving landscape irrigation and landscape design. Policies related to water conservation are specified under "Resource Management" in the DSH. Also, the Caughlin Ranch developers are all voluntarily installing residential water meters in Washoe County areas.

The developer is establishing an ongoing metering program with SPPCo. in order to clearly analyze the actual water requirements for the Ranch and any changes in the amount of water required will be made, where appropriate, by mutual agreement between the developer and SPPCo. The data from this metering program will be provided to the County and City. Any changes in water requirements that might result will also be provided to the County and City.

The updated water demand figures show a reduction of 201.7 acre-feet or a 9% decrease. This decrease primarily reflects two factors. The first is that with the shift from residential to nonresidential uses, the water requirement is much higher for residential vs. nonresidential uses. Second, some of the per unit demand figures that are currently used are lower than those contained in the original projections because of metering.

Given the fact that the DSH calls for water rights to be handled in the same process as is used for other development projects, the water demand associated with the revised master plan will be accommodated through typical development requirements (providing water rights as development occurs).

Water Demand/Rights				
Development Neighborhood	Unit Type	No. Units	Total Water Needed	
			Current	Updated
River Run	Townhomes	91	35.4	31.9
	Patio Homes	112	62.7	56.5
	S.F. Homes	83	59.2	41.8
	Landscaped	15 ± ac.	48.8	43.9
	Subtotal		206.1	174.1
The Meadows	Cluster/townhomes	461	271.4	307.0
	S.F. Homes	130	96.2	65.5
	Landscaping	5 ± ac	16.3	14.6
	Commercial	5.6 ± ac	5.5	4.6
	Subtotal		389.4	396.7

Juniper Trails	Cluster Homes	12	8.9	8.0
	S.F. Homes			
	(1/3-acre)	128	48.1	85.3
	S.F. Estates			
	(1/3 + acre)	284	437.5	319.5
	Landscaping	10 ± ac.	32.6	29.3
	<u>Caughlin Club</u>	<u>7.0 ± ac</u>	<u>14.0</u>	<u>14.0</u>
	Subtotal		541.1	456.1
Caughlin Ridges	Patio Homes	113	60.5	57.0
	S.F. Homes	405	246.0	236.9
	S.F. Estates	0	37.0	0
	Landscaping	3.0 ± ac	9.8	8.9
	Subtotal		353.3	302.8
Caughlin Village	Patio Homes	130	89.6	64.0
	S.F. Homes	296	291.9	231.7
	Commercial	38.1 ± Ac	31.5	77.8
	School	6.0 ± Ac	8.0	12.0
	Recreation	13.0 ± Ac	14.0	38.0
	Landscaping	10.0 ± Ac	32.5	29.3
	R.V. Storage	6 ± Ac	1.8	1.8
	Subtotal		469.3	456.1
The Pines	S.f. Estates	182	227.5	204.8
Total Water Demand			2,186.7	1,996.6
Water Rights Required (Demand/0.58)			3,770.2	3,442.4

Sewage Flows

The original master plan envisioned 3,102 units. At this time, 2,527 homes are proposed for the Caughlin Ranch. This reduces sewage treatment demands by 186,875 g.p.d. The added sewage flow associated with the added retail and office use (305,000 s.f. x 35 g.p.d./1000 s.f. = 10,675 g.p.d.) is much smaller than the residentially-based reduction. The net reduction in sewage treatment requirements amounts to 176,200 g.p.d.

Land Use

The table below compares the land use allotments of the original and the updated master plan.

Land Use Statistics Comparison						
Use	Current Acreage	%	Updated Acreage	%	Change Acreage	% Change
Housing	967	41.9	949	41.1	-18	-1
McCarran Blvd.	64	2.8	64	2.8	0	0
Commercial						
(Retail & Office)	23	1.0	49	2.1	+26	+113
R.V. Storage	6	0.3	6	0.3	0	0
Fire Station	1	0.0	1	0.0	0	0
Elementary School	4	0.2	6	0.3	+2	+50
Active Recreation	24	1.0	24	1.0	0	0
Enhanced Open Space	165	7.2	165	7.2	0	0
Natural Open Space	1,053	45.6	1043	45.2	-10	-1
Total	2,307	100	2,307	100	0	0

As the table shows, the general land use allotment remains unchanged. Housing and natural open space are still the dominant land uses, totaling over 86 percent (compared to 90 percent in the current master plan). The most significant change is the increase in the retail and office use (+26 acres, 113% increase). But, the commercial aspect of the project is still relatively minor (49 acres, 2.1% of the land use) and is deemed warranted through the economic considerations involved with the project. In fact, the commercial use is important from the perspectives of "internalizing" traffic and better serving the neighborhoods that adjoin the Caughlin Ranch.

Traffic Generation

The trip generation rates adopted by the Regional Transportation Commission for the various components of the Caughlin Ranch are presented below.

Use	Daily Trip Generation Rate
Planned Unit Development	7.8 trips per dwelling unit
Retail 0 to 49,999 s.f.	117.9 trips per 1000 s.f.
Retail 100,000 to 199,999 s.f.	66.7 trips per 1000 s.f.
Office	8.5 trips per 1000 s.f.
School - Elementary	1.02 trips per student

Based upon these trip generation rates the following table shows the trip generation for the updated master plan.

Use	Rate	Quantity	Trip Generation
Planned Unit Development	7.8	2,527	19,711
Retail 0-49,999 s.f.	117.9	15 k	1,769
Retail 100,000-199,999	66.7	120 k	8,004
Office	8.5	403 k	3,425
School - Elementary	1.02	600	612
Total	---	---	33,521

The current master plan analysis showed a total daily trip generation figure of 35,796. Thus, the updated master plan projects a decrease of 2,300 daily trips, or a 6% decrease. This decrease is attributable to the added retail and office space being less than that associated with the reduced residential use. Also, much of the traffic associated with the nonresidential uses results from trips that will remain within or internal to the Caughlin Ranch, and thus will not impact the "external" street system. Also, much of the increased traffic will be from adjoining neighborhoods -- traffic that is destined for the office and retail uses in the Caughlin Ranch. This traffic would otherwise be headed, often via circuitous

Caughlin Ranch Master Plan Update II

routes, through other southwest Reno neighborhoods to shopping and service opportunities.

The new plan also does not significantly alter the distribution of traffic that was projected in the original plan. The table below contrasts the "new" and "old" trip distribution.

Origin/destination	Current Trip Distribution	Updated Trip Distribution
Downtown Reno	17%	17%
Central Reno	17%	17%
South Reno	15%	15%
Adjacent Residential Areas	28%	28%
Northwest Reno	8%	10%
Sparks	11%	10%
Northeast Reno	5%	4%
Total	101%	101%

The DSH will accommodate any new impacts associated with revised traffic generation because the "added" traffic is the result of increased commercial space. The trip mitigation fees specified in the DSH are \$135.00 per residential unit and \$1.30 per square foot for non residential use. Thus, the total mitigation fees will increase from \$720,370 to \$1,040,545, an increase of \$320,175 or 44%. The increase in mitigation fee (44%) starkly contrasts with the decrease in traffic of 6%.

6. Development Standards Handbook

Development Standards Handbook

Support Facilities and Services

The purpose of this section is to present various policies/standards related to the placement, timing and design of the infrastructure of the Caughlin Ranch. The following components are covered: transportation, water supply, sewers, stormwater management, fire protection, education, and parks and recreation.

Goal

The goal of the policies and standards is to ensure that the necessary support facilities and services are provided effectively, efficiently, and equitably, and consistent with the theme and needs of the Caughlin Ranch.

Policies/Standards

Transportation

Policy 1 - Transportation Plan

Development of the project will conform to the Transportation Plan for the Caughlin Ranch, as shown in Figures 1 through 4. The plans show the general locations and hierarchy of roads and paths, and probable bus routes and stops.

Policy 2 - Street System And Standards

Streets in the Caughlin Ranch will be designed to be safe and efficient, not overpowering. Users should understand where they are in the project and how to

Caughlin Ranch Master Plan Update II

quickly get where they want to go. Most residents should be able to drive to their homes using just three streets: McCarran to a collector, from the collector on to a local street, and home. Streets will be designed to fit the topography. Where slopes are flat, streets will curve gently to avoid a monotonous grid pattern.

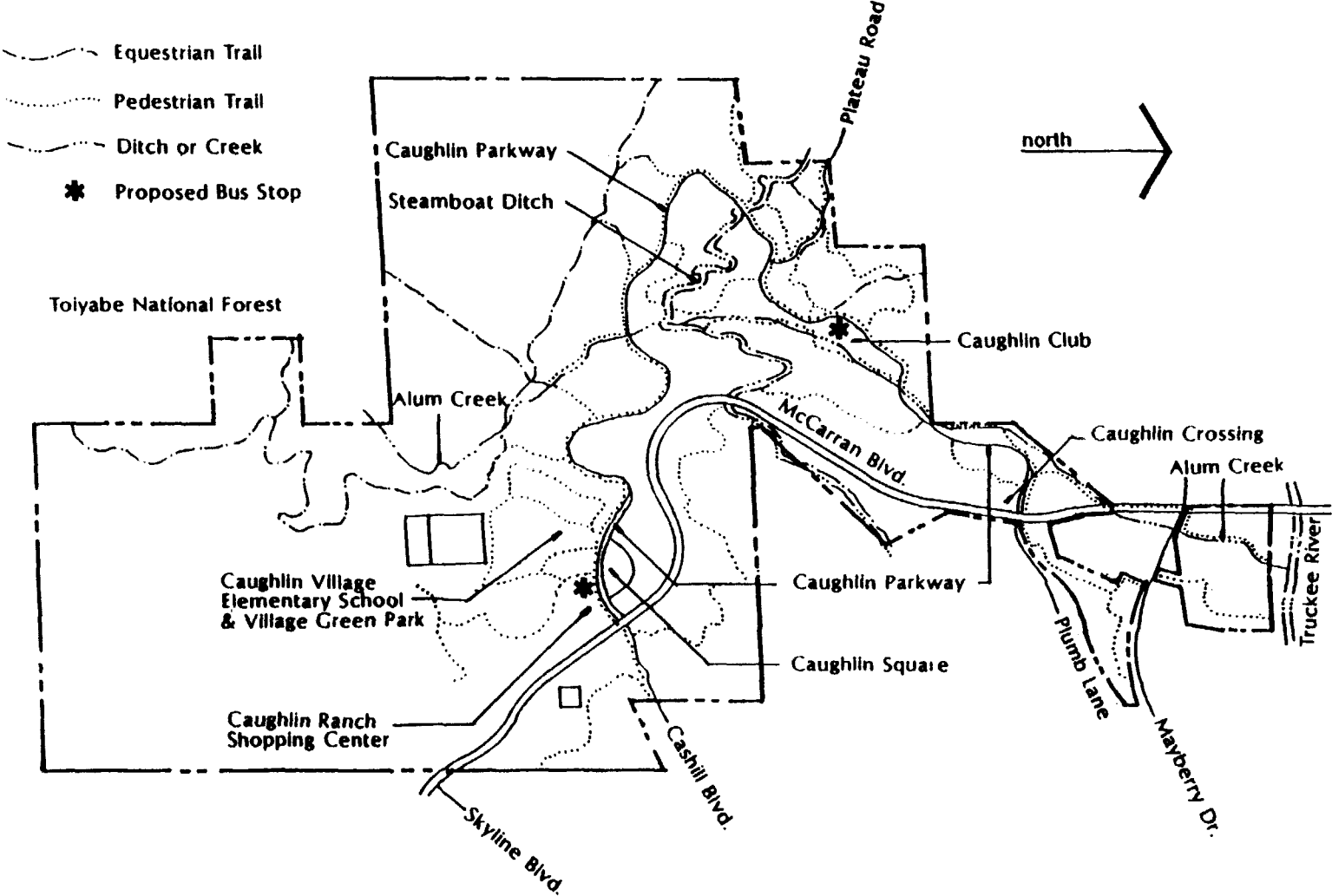
Several types of streets will make up the internal circulation pattern of the Ranch. The type of street varies from a divided parkway to small lightly traveled streets through the mountainous areas. In general, the anticipated traffic volumes, topography and land use of the area will dictate the street width, as well as the parking and sidewalk requirements.

The major entrances at the northern and southern intersections of McCarran Boulevard and Caughlin Parkway will be clearly marked. Signage will let a visitor know he or she has arrived. All on-site traffic control signage will be reviewed and approved by the County and/or City (sheriff/police and engineering). Landscaping will be welcoming and inviting. The streets at these major, high traffic volume entrances to the Caughlin Ranch will incorporate turning lanes, landscaped median strips and sidewalks, as needed. Signalization will be installed as outlined elsewhere in the handbook to facilitate traffic flow in and out of the Ranch. This signalization will be constructed with the traffic mitigation fees described under Policy 3J and will be the responsibility of the City of Reno and Washoe County.

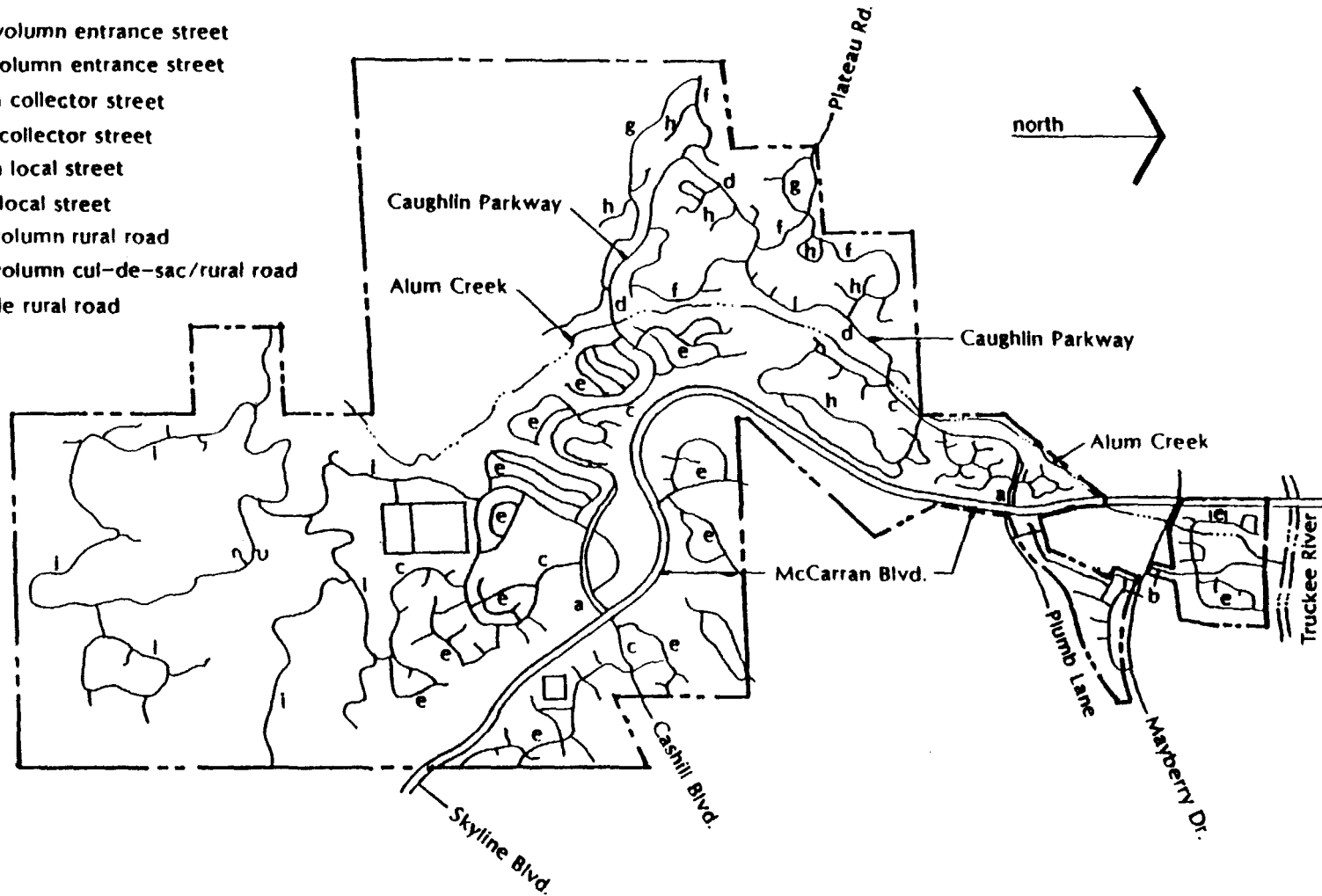
A. Type I: Divided Parkway Entrance Streets

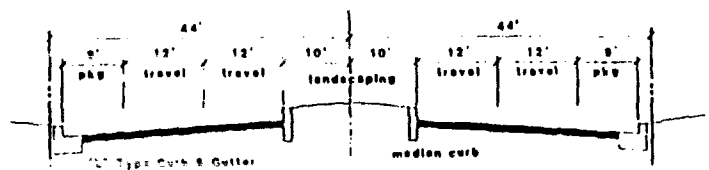
Type I - High Volume divided parkway streets will be used along Caughlin Parkway at the two intersections with McCarran Boulevard. This section will be constructed from McCarran Boulevard approximately 150 feet easterly at Cashill Boulevard and westerly through Caughlin Village to West Gate, and from McCarran Boulevard at West Plumb Lane westerly through a portion of Meadowlake Village.

Circulation Plan



- a: high volume entrance street
- b: low volume entrance street
- c: urban collector street
- d: rural collector street
- e: urban local street
- f: rural local street
- g: low volume rural road
- h: low volume cul-de-sac/rural road
- i: hillside rural road

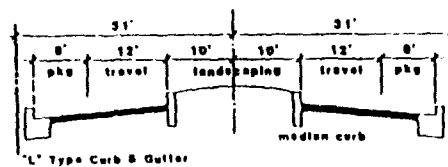




Sidewalks shall be located per the Circulation Plan and shall be separated from the curb where feasible

A High Volume Entrance Street

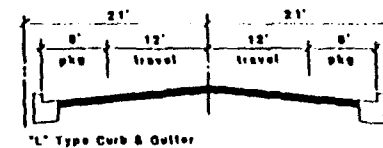
City of Reno



Sidewalks shall be located per the Circulation Plan and shall be separated from the curb where feasible

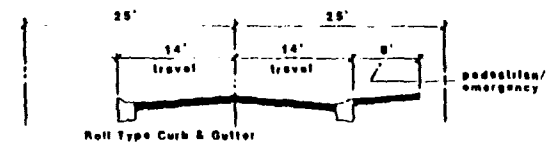
B Low Volume Entrance Street

City of Reno



C Urban Collector Street

City of Reno



no 'on street' parking

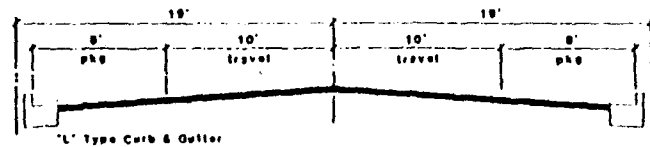
D Rural Collector Street

Washoe County

Type I: Divided Parkway Entrance Streets

* 5-foot public improvement easements shall be included adjacent to the street right-of-way on each side of the street. Pedestrian traffic will be analyzed with development to establish the need for sidewalks or paths, which may be deleted if not warranted.

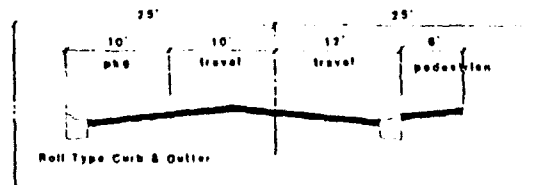
Type II: Collector Streets



E

Urban Local Street

City of Reno



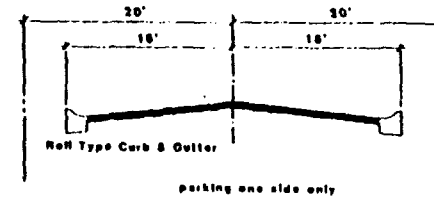
F

Rural Local Street

Washoe County

Type III: Local Streets

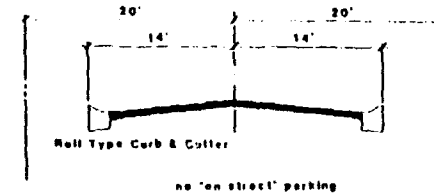
* 5-foot public improvement easements shall be included adjacent to the street right-of-way on each side of the street. Parkstation traffic will be analyzed with development to establish the need for sidewalks or paths, which may be deleted if not warranted.



G

Low Volume Rural Road

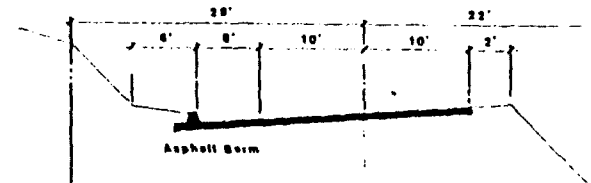
Washoe County



H

Low Volume/Cul-du-sac Rural Road

Washoe County



I

Hillside Rural Road (The Pines)

Washoe County

The Type I - Low Volume divided parkways will be used at the entrances to River Run and Mayberry Meadows at Mayberry Drive. This street section will extend to the nearest intersection within these neighborhoods.

B. Type II: Collector Streets

Collector streets will be the primary traffic arteries in the residential areas. The function is to carry traffic between activity centers, residential areas and major arterials.

The Type II - Urban collectors will be used along certain lengths of Caughlin Parkway and where extensions of existing City of Reno Streets from outside the Ranch are proposed. Caughlin Parkway will be a Type II Urban collector from West Gate to Alum Creek and from Meadowlake Village again to Alum Creek. The extension of Idlewild Drive along River Run and the loop that serves Caughlin Village from Caughlin Parkway will be Type II - Urban collectors also.

Type II - Rural collector street will be used for Caughlin Parkway through Juniper Trails and will transition back to the Type II urban street upon crossing Alum Creek.

C. Type III: Local Streets

The following local streets are designed to move traffic between homes and the Type II streets described previously.

The Type III - Urban street will be used to serve the courts and the low volume roads in the River Run and Mayberry Meadows neighborhoods. The local streets in the Ridges east of McCarran Boulevard will all be Type III Urban streets. Along these streets, parking requirements will be analyzed to determine the need for two on-street parking lanes as tentative maps are prepared. The analysis will consider the lot frontage available for on-street parking, topography, drainage, design speed and sight distances. The intent is to eliminate one parking lane unless specific circumstances dictate otherwise. Should adequate off-street visitor and resident parking be provided, one on-street parking lane may be omitted.

The Type III - High Volume Rural street is designed to serve the homes in Juniper Trails. Specifically, Longknife Road, Plateau Road and Bitterroot Road will use this street section.

The Type III - Low Volume Rural roads will be used to serve the homes in Juniper Trails south of Caughlin Parkway and the Steamboat Ditch.

The Type III - Very Low Volume Rural road will be used in certain areas of Juniper Trails that will have minimal traffic volumes.

The Type III - Hillside Rural road will be used in the Pines. The superelevation (2%) should always slope down into the slope of the hill.

The Type III - Cul-de-sac roads will be used on all dead-end or small loop roads in the Pines and Juniper Trails that serve fifteen or fewer homes. Other cul-de-sacs in the Caughlin Ranch will use the Type III - Low Volume Rural road sections. All cul-de-sac "bulbs" will have a diameter of 80 feet face of curb to face of curb and a dedicated right-of-way diameter of 90 feet. The center portion (32 foot diameter) of cul-de-sacs may be landscaped as an alternative to solid paving.

Street grades on dedicated roads will be designed to not exceed local ordinances. Extensions of existing streets (either physically or planned by existing recorded plats) will match the existing section and transition to the nearest intersection or over a length of 200 feet, whichever is more appropriate in a particular situation.

Policy 3 - Traffic Impact Mitigations

A. The developer will dedicate to the appropriate governmental entity right-of-way for McCarran Boulevard through the property known as the Caughlin Ranch identified in the final plan and profile drawings approved by the Regional Transportation Commission. Prior to the issuance of the first building permit for any phase, the developer shall record parcel map(s) that will cause the dedication of the McCarran Boulevard right-of-way no later than December 1, 1988. However, the developer will cause the dedication of that portion of the McCarran Boulevard right-of-way between Mayberry Drive and the Truckee River, before the 12-01-88 date, at such time as building permits have been issued for 200 dwelling units in the River Run area. That portion of the McCarran Boulevard right-of-way between Plumb Lane and Mayberry Drive will be secured and will be dedicated to the appropriate governmental entity no later than September 1988. At present, all of the McCarran Boulevard right-of-way within the Caughlin Ranch has been dedicated. Adequate slope easements for constructing McCarran Boulevard will be provided with final maps.

B. The Caughlin Ranch Improvement Association (CRIA) will construct (50% of the construction cost) two lanes of McCarran Boulevard between Mayberry Drive and Plumb Lane designed to Regional Transportation Commission standards, at such time as building permits have been issued for construction of 300 dwelling units in the Juniper Trails and/or The Meadowlake Village and Meadowlake areas. If it is determined by the Regional Transportation Commission staff that project traffic in these areas exceeds the ability of the two lanes to maintain level of service "C", the developer will construct additional lanes. This policy has been fully addressed.

C. The CRIA will construct two lanes of McCarran Boulevard between Cashill Boulevard and Skyline Boulevard designed to Regional Transportation Commission standards at such time as building permits have been issued for construction of 300 dwelling units in Caughlin Ridges, Caughlin Village and/or The Pines areas. This improvement will be of an adequate section to handle project traffic as defined in item "B." This policy has been fully addressed.

D. Access to McCarran Boulevard at Brighton Way will be limited to right-turn in and right-turn out. Provisions will be made for deceleration and acceleration lanes at this location, to be constructed to R.T.C. standards by the developer of Vista Pointe and/or Westpoint at the time Vista Pointe or Westpoint is developed.

E. If developers at the Caughlin Ranch propose that McCarran Boulevard be designed and constructed with buffering for adjacent properties and this buffering requires on-going maintenance, the Caughlin Ranch Homeowners Association will be responsible for the cost of this maintenance.

F. All development adjacent to McCarran Boulevard rights-of-way will be subject to site specific design approval by the City and/or County, depending on which entity has jurisdiction, to assure that the properties will not be adversely affected by McCarran Boulevard when it is constructed. The design goal is to limit the noise impact from McCarran Boulevard traffic on adjoining properties to an Leq(h) of no more than 67 dBA. Final design of mitigations will be at the final map or building permit stage.

G. The developer of Mayberry Meadows will dedicate to the City and/or County right-of-way along Plumb Lane of adequate width to allow construction of four travel lanes at the time the affected property is developed. This policy has been fully addressed.

Caughlin Ranch Master Plan Update II

H. The developer of the Caughlin Crest subdivision will construct and dedicate Cashill Boulevard from the Caughlin Ranch boundary to the proposed McCarran Boulevard to City standards and to the approval of the City Engineer. With development, Cashill Blvd. shall also be constructed to permanent access street standards from its present terminus to the Caughlin Ranch boundary. This policy has been fully addressed.

I. Caughlin Ranch streets which connect with streets existing or planned in the City will meet the City's standards at the next intersection or closer if approved by the City and/or County Engineer. This policy has been fully addressed.

J. Excluding the specific right-of-way dedications and construction requirements contained in other conditions, the developer will pay a per trip fee based upon the cost of the mitigations outlined in their traffic report (1983) for off-site traffic mitigation measures necessary in 2002 with McCarran Boulevard in place. The basis for the trips will be the number of trips attributable to each unit type and commercial use as outlined in the developer's traffic report. The fee will be paid at the time Certificates of Occupancy or Building Permits are obtained for each structure. The fees will be deposited in the Road Improvement Fund established by the City and/or County and will be used for off-site mitigation of the traffic impacts of development - as determined by the City or County Public Works Directors, and Regional Transportation Commission staff.

The trip fee will be collected according to the following formula:

Land Use	Total Daily Trips	No. Units	Fee Per Unit	Total Fee
Residential	19,711	2,527	\$135.00	\$341,145
NonResidential	13,810	538,000 sq. ft.	\$1.30/sq. ft.	\$699,400

Policy 4 - Pedestrian Paths

The crossing of pedestrian/equestrian trails and streets are sources of potential conflict between users. This issue is particularly pressing on Caughlin Ranch, given the emphasis placed on developing a large network of pedestrian/equestrian paths. Special efforts will be made to minimize the problem by using a

combination of signage, striping, textured pavement treatment, and/or grade separated crossings.

Below grade intersections will be constructed wherever feasible to eliminate these potential conflicts. Feasibility will first be based on whether the elevations of the path and streets are such that sufficient clearance is available. Second, the developer and the County and/or City will determine if the potential for conflict warrants the cost of a below grade intersection. At grade intersections between paths, trails and streets will be clearly marked to advise both the motorist and pedestrian of the approaching conflict. Signs alerting motorists will be placed at least 50 feet ahead of the intersection.

Each neighborhood (with the exception of the Pines) has at least two points of access for pedestrian/bicycle traffic that are independent of vehicle traffic. As each tentative or final map is approved, the pedestrian trails will conform to the Circulation Plan, which may be revised from time to time subject to the approval of the Architectural Control Committee and review by the County and/or City.

The following general guidelines will apply to all pedestrian pathways.

- A. Pathways will travel along the edges of open areas.
- B. Path widths will vary from 4 to 8 feet depending on the projected traffic, area and topography.
- C. Path surfaces will be of asphalt pavement where bicycling will occur. Secondary, steeper paths may be of decomposed granite. Steeper, more remote paths will follow existing animal trails and jeep roads.
- D. Grades will normally be a maximum of 9% with the possibility of some segments having grades exceeding 15%, where topographic conditions dictate
- E. Paths through wet meadow areas will be kept to the edges of the meadow to minimize their impact and reduce the number of bridges that will be needed.
- F. Connection to existing paths and bikeways will be made wherever possible.
- G. Paths will be kept separate from roadways where possible, with crossings at controlled intersections or at long tangent road sections.

H. Any paths not dedicated to and accepted by the County and/or City will be owned and maintained by the Caughlin Ranch Homeowners Association.

Policy 5 - Equestrian Trails

Equestrian Trails will be allowed only in those areas of the Ranch south of and including the Steamboat Ditch and in selected portions of Juniper Trails that lie north of this ditch. Equestrian paths will connect with existing "jeep" roads and trails leading to the Toiyabe National Forest. The location of all equestrian trails will be approved by the Architectural Control Committee and the City and/or Washoe County Department of Parks & Recreation and will conform to the following general guidelines:

- A. Trails will be confined to areas which contain light automobile traffic and minimal conflicts with joggers and bicyclists.
- B. At-grade street crossings will be delineated with striping or different paving materials, as outlined in the pedestrian path section.
- C. Horses will be discouraged in meadow areas to prevent damage to the vegetation through the location of trails and signage, if necessary.
- D. Trail surfaces will be of earth, with large rock removed. Water bars will be constructed to prevent erosion along the trails as necessary.
- E. The trails will be owned and maintained by the Homeowners Association or jointly owned/maintained by the Homeowners Association and/or Washoe County and/or the City of Reno.

Policy 6 - Mass Transit:

Bus routes and stops will be jointly established by the developer, the Regional Transportation Commission, and the Washoe County School District. Proposed bus stop sites are as follows:

- A. On Mayberry Drive at the entrance to River Run.

B. On Caughlin Parkway at the Caughlin Crossing Convenience Center, the Caughlin Club, the southerly intersection with Alum Creek, and at Caughlin Square.

Water Supply

Policy 1 - Water Service

Domestic water will be served to the Caughlin Ranch by Sierra Pacific Power Company (SPPCo). When the original master plan was approved (1983), approximately 64 percent of the proposed dwelling units on the Ranch were within the SPPCo water service area. The remainder of the Ranch has been or will be annexed into the SPPCo water service area.

Policy 2 - Water Requirements And Rights

The Ranch purchase includes 405.1 acre feet of water from claims 230, 150, and 150 1/2 of the Orr Ditch Decree that is inside the water service area and the developers have a prior commitment from SPPCo to provide 516.0 acre feet of water to the portion of the Caughlin Ranch that was outside of the service area

The original (1983) rights and commitments represent 36.9% of the "inside" requirement and 56.3% of the "outside" service requirement. The remainder of the water needed inside the original service area will be provided by one or a combination of the following alternatives:

A. Placement on the SPPCo waiting list and ultimate purchase of rights from SPPCo.

B. Settlement of ongoing litigation on the use of water from Stampede Reservoir.

C. Transfer of other water rights to SPPCo or the appropriate government authority in return for service.

Those water rights required to make up the necessary amount needed to serve that area outside the 1983 SPPCo service area will be supplied to SPPCo or a

Caughlin Ranch Master Plan Update II

governmental authority as the need arises according to authorized procedures in effect at the time of transfer.

The developer is establishing an ongoing metering program with SPPCo in order to clearly analyze the actual water requirements for the Ranch and any changes in the amount of water required will be made, where appropriate, by mutual agreement between the developer and SPPCo. The data from this metering program will be provided to the County and City as it becomes available from SPPCo. Any changes in water requirements that might result will also be provided to the County and City.

Water Rights				
Development Neighborhood	Unit Type	No. Units	Total Water Needed	
			Orig.	Updated
River Run	Townhomes	91	28.0	31.9
	Patio Homes	112	56.0	56.5
	S.F. Homes	83	59.2	41.8
	Landscaped	15 ± Ac.	48.8	43.9
	Subtotal		192.0	174.1
The Meadows	Cluster/ Townhomes	461	170.8	307.0
	S.F. Homes	130	59.2	65.5
	Landscaping	5 ± Ac.	81.3	14.6
	Commercial	5.6 ± - Ac.	3.0	4.6
	Subtotal		314.3	389.4
Juniper Trails	Cluster Homes	12	20.0	8.0
	S.F. Estates (1/3-acre)	128	214.6	85.3
	S.F. Estates (1/3 + acre)	284	175.0	319.5
	Landscaping	10.0 ac.	40.9	29.3
	Caughlin Club	7.0 ac.	14.6	14.0
	Subtotal		465.1	456.1

Development Neighborhood	Unit Type	No. Units	Total Water Needed	
			Orig.	Updated
Caughlin Ridges	Cluster Homes	113	0.0	57.0
	S.F. Homes	405	471.8	236.9
	Landscaping	3.0+ Ac.	0.0	8.9
	Subtotal		471.8	302.8
Caughlin Village	Patio Homes	130	81.2	64.0
	S.F. Homes	296	186.8	231.7
	Commercial	381± Ac.	9.7	77.8
	School	6.0± Ac.	7.0	12.0
	Recreation	13.0± Ac.	24.0	38.0
	Landscaping	10.0± Ac.	32.5	29.3
	R.v. Storage	6.0+- Ac.	2.6	1.8
	Subtotal		343.8	456.1
The Pines	S.F. Estates	182	227.5	204.8
Total Water Demand			2,014.5	1,996.1
Water Rights Required (demand/0.58)			3,473.3	3,442.4

Policy 3 - Water Conservation

Although the SPPCo. water consumption rates are generally accurate when applied throughout their entire service district, these same rates are believed to be somewhat conservative when applied to the Caughlin Ranch. The development at the Caughlin Ranch will employ a number of conservation techniques to reduce the traditionally accepted water consumption rates initially applied to the Caughlin Ranch.

The key areas targeted to reduce domestic water consumption are landscape irrigation and in-house appliance and fixture usage. Policies related to water conservation are specified under "Resource Management."

Caughlin Ranch Master Plan Update II

Sewerage

Policy 1 - Connection To The City Of Reno System

A maximum of 500 housing units in the River Run, The Meadows and Juniper Trails portions of the Caughlin Ranch can be connected to the existing sanitary sewers at Idlewild Drive, Eastwood Drive and Joshua Drive. Any additional sewer connections in these areas will require connection to the Lawton Interceptor across the Truckee River. The capacity of existing lines in the Cashill and Gibraltar Drive areas will be analyzed to determine what parts of Caughlin Ridges, Caughlin Village and The Pines can be handled by the extension of these facilities. All areas that cannot be connected to these sewers will be connected to the Lawton Interceptor.

Policy 2 - Connection To Lawton Interceptor

The Caughlin Ranch developers and the City staff will cooperatively work to revise the existing Reno Municipal Code to provide that the developers may be reimbursed for capacity oversizing from future development rather than only the incremental cost difference for a larger sewer pipe as presently is allowed in the code.

Policy 3 - Sewer Sizing

At the final design stage, sewers will be designed to accommodate all existing, proposed or potential upstream development that naturally drains to the sewers.

Stormwater Management

The two main stormwater management objectives for the Caughlin Ranch are: A) pollution control and B) groundwater recharge.

Policy 1 - Alum Creek

The 6-hour, 100 year return frequency storm for Alum Creek has been calculated by the Soil Conservation Service at 2580 cubic feet per second (CFS). For this reason, a wide corridor will be reserved as common area along the existing

Alum Creek channel that corresponds to the 100-year storm. No residential structure will be allowed in the 100 year flood plain which will be shown on each tentative map. A series of basins and ponds will be built along Alum Creek to slow the flow of stormwater. The capacity of these basins and ponds will be based on topography and aesthetic considerations, as well as the hydrology of the Creek.

Policy 2 - Detention Basins

Detention basins will be used where practical to control short, high intensity local storms, for settling particulates prior to discharge downstream and to encourage groundwater recharge. Accumulated sediment will be removed as dictated by actual storm sediment conditions and disposed of as fill or used for landscaping. This cleaning will be performed as directed by the Homeowners Association. In the event the County and/or City determines that sediment has accumulated to a point where the drainage or sediment control functions of a basin have a negative environmental or hydrological impact, the City and/or County will notify, in writing, the Caughlin Ranch Homeowners Association to take corrective measures. Detention basins will be built prior to other earthwork operations, when practical, for use in drainage and sediment control during construction.

Policy 3 - Infiltration Trenches

Throughout the Caughlin Ranch, where practical, infiltration devices will be employed for stormwater control and petrochemical removal. These devices can be either the surface trench design or underground french drains. Infiltration devices will be designed to capture and retain the initial storm flow and will follow the guidelines as set forth in the "Washoe County Urban Stormwater Management Program" Volume IV, dated June, 1983. Figures 5 and 6 show typical infiltration device designs that will be used where surface flows and subsurface conditions warrant. Stormwater will be collected and discharged in these infiltration devices as frequently as is practically feasible to prevent large concentrations of stormwater in streets and swales, and to reduce the off-site flow of petrochemical pollutants. During construction and up to the time landscaping is completed, infiltration trenches will be protected to insure that no sediment is allowed to enter the trenches.

Caughlin Ranch Master Plan Update II

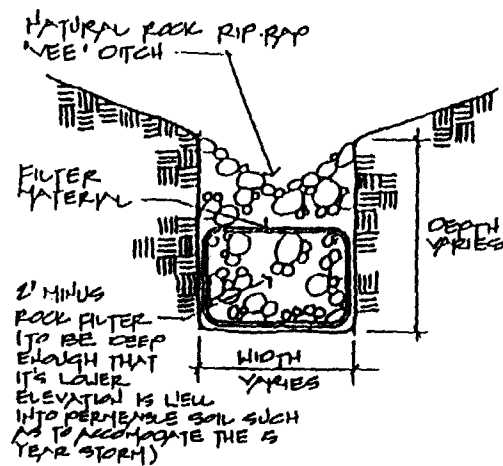
Policy 4 - Street Systems and Parking Areas

The street system and parking areas will be designed to be part of the Stormwater Management System Plan for the Caughlin Ranch. Streets will be designed to parallel the existing topography as much as possible, to result in minimal land disturbance which will reduce erosion potential. Runoff will be intercepted frequently to avoid large build-ups of stormwater and resultant erosion. The spacing of runoff interception points will be based on stormwater flows, topography and the soil and vegetation's resistance to erosion. In the multifamily neighborhoods and also in the commercial, professional, and recreational facilities, parking areas will be designed to minimize large expanses of pavement in favor of modular pavement areas with regularly interspersed void areas filled with pervious materials such as sod or gravel. At a minimum, parking areas will be landscaped to City and/or County standards. A parking area includes the access drives, parking stalls and adjoining areas not covered with impervious surfaces. Catch basins will divert initial stormwater flows from streets and parking areas to off line infiltration trenches or swales. The Architectural Control Committee and the County and/or City will review the street and parking layout of all neighborhoods.

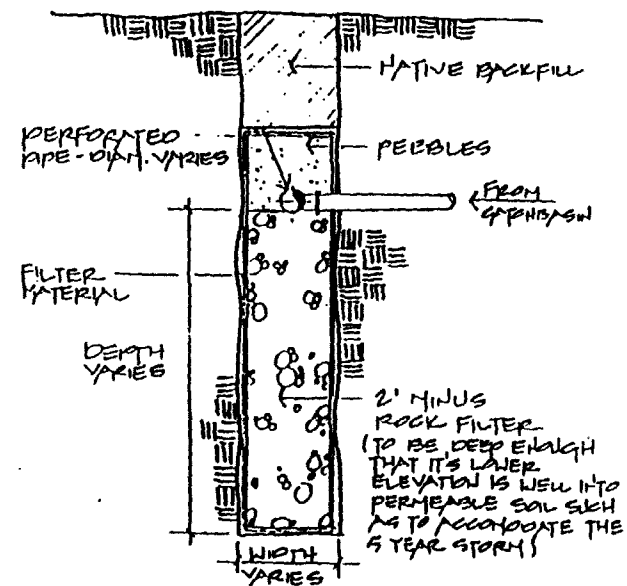
Policy 5 - Maintenance

Stormwater systems will be inspected regularly for structural problems and to remove large accumulations of sediment and trash. The inspection schedule will be based on the frequency and severity of storms.

Two entities will be responsible for maintenance of drainage structures. All dedicated facilities (i.e. streets and associated drainage facilities) will be maintained by Washoe County or the City of Reno. All other drainage facilities located within the common areas of the Caughlin Ranch will be maintained by the Caughlin Ranch Homeowners Association. In the event the County and/or City determines that any common area drainage structure is not properly maintained, the City and/or County will notify the Homeowners Association in writing to take corrective measures. Drainage facilities located on privately owned property (not common area) shall be maintained by the owner of the property.



**Type I
Infiltration Trench**



**Type II
Infiltration Trench**

5. Infiltration Trench Detail

Caughlin Ranch Master Plan Update II

6. Infiltration Trench Detail

Policy 6 - Irrigation Ditches

Existing easements will, of course, be perpetuated to allow the ditch companies maintain the irrigation ditches. Fencing appropriate to the Caughlin Ranch theme (see fencing policies) will be provided along the ditch where needed for safety reasons or to ensure the ditch can be properly maintained. No collected public runoff will be allowed to enter any irrigation ditch unless approved by the City/County and the ditch company.

Fire Prevention

Policy 1 - Fire Fuel Breaks

Per discussions with both the Truckee Meadows Fire Protection District (TMFPD) and the City of Reno Fire Department (RFD), the need for fire fuel breaks and the fuel break methods will be determined at the final map stage for subdivisions and during building permit plan check for non-subdivision projects. Consideration of maintenance techniques and responsibilities will be a part of this review and approval. As agreed, the developer, TMFPD, RFD, the U.S. Forest Service, the Nevada Division of Forestry, and the University of Nevada-Reno Department of Renewable Resources will work jointly to develop effective, innovative and aesthetically pleasing solutions.

Policy 2 - Fire Station Site

The Caughlin Ranch Fire Station site (see Figure 7) has been identified adjacent to Caughlin Parkway and Village Green Parkway in Caughlin Village. The developer will dedicate the site to the City of Reno and receive credit for any fire protection mitigation fee that may be required. The fire station will be of an architectural character consistent with the Caughlin Ranch theme and materials, and must be approved by the ACC. Design and construction of the station shall be paid for by the City of Reno.

Policy 3 - Construction Standards

All applicable codes and requirements will, of course, be met. Special roofing materials and/or treatment may be required in certain cases. This will be determined

in conjunction with the implementation of Policy 1 - Fire Fuel Breaks at the final map or building permit stage.

Education

Policy 1 - School Site

A 6.0 acre site depicted in Figure 8 has been dedicated for the Caughlin Ranch Elementary School, as discussed with the Washoe County School District (WCSD). The size is based on a joint use proposal with the adjacent 13.0± acres that is to be a park facility. The site has been dedicated to WCSD.

Parks & Recreation

Policy 1 - Recreation Management Plan

The County, the City and the developer will jointly develop a Recreation Management Plan (RMP) for the Caughlin Ranch. The purpose of the RMP is to ensure that the parks and recreation facilities on or adjacent to the Caughlin Ranch are built and maintained in an effective and efficient manner. The prime objective of the RMP will be to develop a mechanism where the County and/or City will collect Residential Construction Taxes (RCT) for use as specified under the separate agreements between the Caughlin Ranch and the City of Reno and Washoe County. These agreements are included at the end of this Handbook.

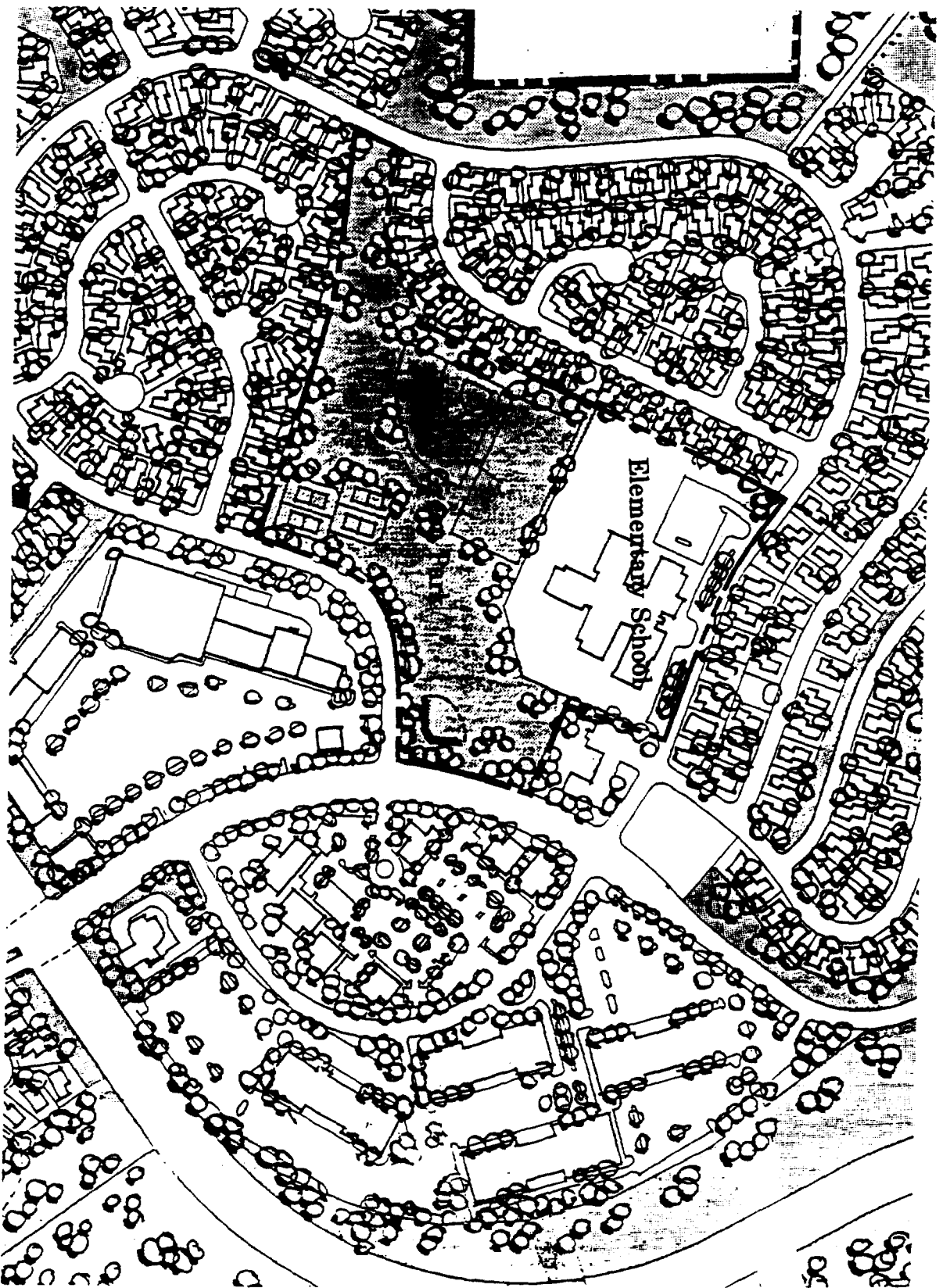
Policy 2 - Crissie Caughlin Park

The City of Reno will be responsible for the construction and maintenance of any improvements to Crissie Caughlin Park.

Policy 3 - School/Recreation Complex Joint Use Facility

A 13.0± acre site will be used to develop a park, which is proposed for a joint use with the Washoe County School District, as shown in Figure 8.





Policy 4 - Paths And Trails

The system of bicycle/pedestrian paths will be maintained and partially owned by the Caughlin Ranch Homeowners Association. The County will own paths and trails in the County portions of the Caughlin Ranch.

Policy 5 - Other Recreational Amenities

The Caughlin Club will be a privately owned, membership facility. The open space will be owned and maintained by the Caughlin Ranch Homeowners Association. The Village Green Park will be built by the Caughlin Ranch using RCT funds as per the Revised Master Plan and then owned and maintained by the Caughlin Ranch Homeowners Association.

Resource Management

The policies and standards presented here are designed to protect and conserve energy, water and air resources.

Goal

To develop a community that uses and manages resources efficiently and effectively, giving due consideration to design, marketability, liveability and aesthetic implications.

Policies

Energy

Policy 1 - Cost Effectiveness/flexibility

To build a community that highlights energy management with features that are cost-effective, not speculative, by requiring all building applicants to submit a

statement of what plans for energy conservation and/or renewable energy use are proposed and why to the Architectural Control Committee.

Policy 2 - Residential Energy Efficiency Evaluation Program (REEEP)

This is a program that has been developed and is in effect in Carson City, Nevada. In Carson City, participation in the program is not mandatory. In the Caughlin Ranch, all home builders, other than those who are building a custom home for a particular party, will be required to prepare the evaluation and provide the information to the home buyer. Parties who purchase a lot to construct their own home will be supplied a copy of the REEEP for use in planning their own home. REEEP forms are located at the end of the Development Standards Handbook. The REEEP form must be completed for all residential construction and submitted to the Architectural Control Committee.

Policy 3 - Monitoring

Every two years, the developer will provide the Regional Planning Commission a report on the level and effectiveness of energy conservation/alternate energy usage in the Caughlin Ranch until the project is 90 percent built-out. The contents of the report will be based on information received by the Architectural Control Committee and general knowledge of the state-of-the-art in the topic. At a minimum, the report will specify what kinds of energy conservation measures and renewable energy systems are being used and how often they are implemented at the Caughlin Ranch. When the third such monitoring report is submitted, an estimated energy budget of the "typical" Caughlin Ranch home in each housing category (single family estates, single family homes, townhomes, condominium homes and patio homes) shall be submitted as a part of the monitoring report.

Water

Policy 1 - Landscape Irrigation

The following items will be used to reduce the domestic water used for irrigation:

A. Specific building envelopes will be specified for all single family estate development and landscaping will be limited to specific areas.

B. Landscaping will be of a type that is commensurate with existing natural surroundings as specified under Landscaping Policies.

C. Automatic and, where cost effective, drip irrigation systems will be installed in all landscaped areas.

D. Time clocks are required for all irrigation systems and operators of these systems will be instructed by the Homeowners Association to set proper irrigation time durations and frequencies and to schedule irrigation for times of minimal evaporation.

Policy 2 - Appliance And Fixture Usage

The following concepts will be encouraged by the Architectural Control Committee:

A. Installation of state-of-the-art water saving fixtures, such as low water use shower heads or water saving toilets.

B. Installation of state-of-the-art water saving appliances for things, such as washing machines and dishwashers.

C. Use of trash compactors to limit the use of garbage disposals in sinks.

Air Quality

Policy 1 - Construction Practices

During construction phases, an ongoing program will be maintained to reduce total suspended particulate emissions (fugitive dust). The program will be approved by the Washoe County Health Department. Since this policy assures a continuing dust control program, this serves as the acceptable application for issuance of permits. The fugitive dust program will be incorporated by reference into this handbook when approved by the Washoe County District Health De-

Caughlin Ranch Master Plan Update II

partment. Other areas of this handbook address revegetation standards for disturbed areas that address long-term dust and wind erosion concerns.

Policy 2 - Traffic Mitigations

As discussed with the Health Department, with development of the traffic mitigations described previously, air quality standards will not be violated. Those mitigation measures identified to be developed for subsequent phases will be consistent with approved phasing of the development. The funding of all offsite mitigations is to be taken care of with the trip generation fee mentioned earlier in the handbook.

Housing And Community Development

The purpose of this section is to describe the policies, principles, standards and deed restrictions that will control Caughlin Ranch construction. These controls and guiding philosophies will ensure that the project is built and maintained as envisioned in the approved master plan.

Goal

The goal, simply put, is to build a well-designed, unique and efficient community.

Policies/Standards

Architecture

Policy 1 - Architectural Style

All building must incorporate the "ranch" theme or flavor architecturally, in a manner that is complementary and compatible with the site and its surroundings. Specific standards are defined in the Declaration of Protective Covenants, which are included later in this handbook. All building proposals must be prepared by a licensed architect or certified residential designer and will be reviewed by the